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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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CROWELL & MORING, L.L.P.
P.O. Box 14300
Washington, DC 20044-4300

EXAMINER	
JIMENEZ, MARC QUEMUEL	
ART UNIT	**PAPER NUMBER**
3726	

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/972,195	BRODT ET AL.	
	Examiner	Art Unit	
	Marc Jimenez	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) *19,20,30,31 and 34-48* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18,21-29,32 and 33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03022005, 12212004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, Species IA, Species IY in the reply filed on 3/2/05 is acknowledged. The traversal is on the ground(s) that groups I and II include common distinguishing features which should result in their examination and allowance in a single application. This is not found persuasive because applicant has not specifically pointed out which distinguishing features would result in their examination and allowance in a single application. Furthermore, as noted in the restriction requirement, the reasons for requiring restriction requirement between groups I and II were because the combination does not require the particulars of the subcombination because it does not require connecting the basis sheet, in a flat or in an incompletely formed preforming state, to the reinforcing sheet at a point predetermined for subsequent reinforcing point and the subcombination has separate utility as for use in building structures instead of vehicular structures.

The requirement is still deemed proper and is therefore made FINAL.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 10/7/00. It is noted, however, that applicant has not filed a certified copy of the 100 49 660.1 application as required by 35 U.S.C. 119(b).

Claim Objections

3. Claim 10 is objected to because of the following informalities: the claim has the symbols "- -" in lines 4 and 5 which should be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-18, 21-29, 32, and 33** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "the patched composite sheet" in line 7 which lacks proper antecedent basis.

6. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required

feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation "less than three seconds", and the claim also recites "less than two seconds" which is the narrower statement of the range/limitation. Also, claims 11 and 12 recite "20-40 seconds", and "25-30 seconds" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1, 4, 7, and 32** are rejected under 35 U.S.C. 102(b) as being anticipated by Cattanach et al. (US4657717).

Cattanach et al. teach a method for the production of a three-dimensionally shaped structural part comprising a basic sheet **3** and at least one smaller locally arranged reinforcing sheet **1**, in which the basic sheet **3** is connected, in a flat state or in an incompletely formed preforming state (see figure 1), to the reinforcing sheet **1** at a point predetermined for a subsequent reinforcing point, and the parts of the patched composite sheet structure are subsequently jointly formed by an openable and closeable forming tool in a forming press (col.

8, lines 13-17), wherein the patched composite sheet structure is heated before joint forming to a temperature which is above a forming temperature of the material (col. 7, lines 31-33), is formed in a hot state into a desired shape (col. 7, lines 32-33) and is subsequently cooled in the forming tool (col. 7, lines 47-48), which is kept closed, or in a following fixing tool, with the desired forming state being fixed mechanically.

Regarding claim 4, see figure 7 where there are shown "preformed" reinforcing sheets **11 or 10**. The sheets **10 and 11** can be said to have "reinforcing beads" because of the structural shape of the reinforcing sheets **10 and 11**.

Regarding claim 7, the cooling takes place on the forming tool (col. 7, lines 47-48).

Regarding claim 32, the parts made are for "vehicles" (col. 1, line 13).

9. **Claim 8** is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cattanach et al.

Regarding claim 8, Cattanach et al. teach cooling to at least about 500 degrees C because the limitation "cooled at least to about 500 degrees C" could mean any temperature range between room temperature to 500 degrees C because it is being "cooled".

Alternatively, the cooling temperature of the sheet is considered an obvious matter of design choice to a person of ordinary skill in the art, at the time of the invention, depending upon the particular material type of metal sheet that is deformed.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. **Claims 2, 3, 13, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cattanach et al. in view of Jarnverk (GB1490535).

Cattanach et al. teach that the metal used is superplastic (abstract, line 5 and col. 2, lines 20-22). However, Cattanach et al. do not specifically teach that the material is heated above which the material structure is in an austenitic state.

Jarnverk teaches heating steel to a hardening temperature where the steel will be in austenitic state (page 1, lines 72-75).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Cattanach et al. with the step of heating to a temperature where the steel will be in austenitic state, in light of the teachings of Jarnverk, in order to harden the steel.

Regarding claim 3, Jarnverk teaches heating within a temperature range between 850 and 930 degrees C (col. 2, lines 74-75). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Jarnverk with heating within a temperature range between 850 and 930 degrees C, in light of the teachings of Jarnverk, in order to harden the steel.

Regarding claims 13 and 14, Jarnveck teaches rapid cooling to obtain a martensitic and/or bainitic structure (page 5, lines 8-9). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Cattanach et al. with a martensitic and/or bainitic material structure, in light of the teachings of Jarnveck, in order to strengthen the sheet. The particular temperature range and time it takes to rapidly cool the sheet is considered an obvious matter of design choice to a person of ordinary skill in the art, at the time of the invention depending upon the particular metal sheet used. Some sheets will need to be heated at a higher temperature than other sheets and have different cooling temperatures and times to obtain martensitic and/or bainitic state.

12. **Claims 5, 6, 23, 25, 27, and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cattanach et al.

Cattanach et al. teach the invention cited with the exception of using a heating furnace to heat the sheet and placing in the tool in a time span of less than three seconds or using a furnace in a protective-gas atmosphere. Official notice is taken that it was well known to a person of ordinary skill in the art, at the time of the invention, to have provided a heating furnace to heat and placing the heated sheet in the tool in a time span of less than three seconds, in order to evenly heat the metal sheet and in order to easily deform the metal sheet.

Regarding claim 6, at the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have formed the sheet in 3 to 5 seconds because applicant has not disclosed that forming the sheet in 3 to 5 seconds provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in

the art, furthermore, would have expected applicant's invention to perform equally well with either the time it takes to deform the sheet as taught by Cattanach et al. or the claimed 3 to 5 seconds because either amount of time to deform perform the same function of forming the sheet equally well depending on the thickness and type of sheet metal used. Therefore, it would have been an obvious matter of design choice to provide Cattanach et al. with the features of claim 6.

Regarding claims 25, 27, and 28, the particular sheet metal used is considered an obvious matter of design choice to a person of ordinary skill in the art, at the time of the invention, depending upon the required strength characteristics of the sheet needed and the application that the sheet is used for. Furthermore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have selected the claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

13. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Cattanach et al.

Cattanach et al. teach the invention cited with the exception of cooling at time of 20-40 seconds.

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have cooled at a time window of 20-40 seconds because applicant has not disclosed that a cooling time window of 20-40 seconds provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art,

furthermore, would have expected applicant's invention to perform equally well with either the amount of time it takes to cool as taught by Cattanach et al. or the claimed 20-40 seconds because either amount of time to cool perform the same function of producing a formed part equally well. The amount of time it takes to cool depends upon the type of metal used and the amount of heat applied. One of ordinary skill in the art, at the time of the invention, would have found it obvious to modify the amount of time it takes to cool depending upon the materials used and the amount of heat need to deform the materials.

Allowable Subject Matter

14. Claims 9, 10, 12, 15-18, 21, 22, 24, 26, 29, and 33 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Contact Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number (571) 272-4530. The examiner can normally be reached on Monday-Friday between 5:30 a.m.-2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
July 27, 2005

MARC JIMENEZ
PRIMARY EXAMINER
7/27/05